



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Thomas Apple et al. Art Unit: 2672

Serial No.: 08/736,143 Examiner: Blackman, A.

Filed : October 28, 1996

Title : MEDIA WALL FOR DISPLAYING FINANCIAL INFORMATION

MAIL STOP ISSUE FEE

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

PETITION FOR PATENT TERM EXTENSION PURSUANT TO 37 C.F.R. 1.181

Applicants hereby petition for reconsideration of the Patent Term Extension (PTE) accorded the above-referenced patent. Attached herewith is a copy of the Notice of Allowance including a Determination of Patent Term Adjustment under 35 U.S.C. 154(b), mailed June 9, 2005, for the above-referenced patent. The notice indicates that the Patent Term Extension at allowance is 0 days. Reconsideration of the Patent Term Extension to increase Total PTE from 0 to 1183 days, is requested.

CERTIFICATE OF MAILING BY FIRST CLASS MAIL

I hereby certify under 37 CFR §1.8(a) that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage on the date indicated below and is addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Date of Deposit

- und und update

Signature

Marie Collins

Typed or Printed Name of Person Signing Certificate

Applicant: Thomas Apple et al. Attorney's Docket No.: 09857-003001

Serial No.: 08/736,143 Filed: October 28, 1996

Page : 2 of 4

REVIEW OF PATENT TERM ADJUSTMENT CALCULATION

A review of the Patent Term Extension History in the PAIR system shows that the United for the present application. Applicants contend that the application is eligible for PTE, and that a PTE calculation of 1183 days is the correct calculation pursuant to 37 C.F.R. §§ 1.701(a)(3) and (c)(3).

Under 37 C.F.R. § 1.701(a)(3), an application is entitled to PTE if the issuance of the patent was delayed due to Appellate review by the Board of Patent Appeals and Interferences (BPAI) and the patent was issued pursuant to a decision in the review reversing an adverse determination of patentability and if the patent is not subject to a terminal disclaimer.

The present application is not subject to a terminal disclaimer.

Further, 37 C.F.R. § 1.701(a)(3) indicates that, if the application is remanded by a panel of the BPAI and the remand is the last action by a panel of the BPAI prior to the mailing of a notice of allowance, "the remand shall be considered a decision in the review reversing an adverse determination of patentability ... and a final decision in favor of the applicant under paragraph (c)(3) of this section."

The present application was subject to a review of the BPAI that delayed issuance of the patent, and the remand ordered by the BPAI on November 19, 2004, is the last action of the panel prior to the mailing of the Notice of Allowance on June 9, 2005. Thus, the remand is a "final decision in favor of the applicant by the Board of Patent Appeals and Interferences" as defined in 37 C.F.R. § 1.701(a)(3).

In view of the foregoing, Applicants submit that the present application is entitled to a patent term extension to be calculated as detailed in 37 C.F.R. § 1.701(c)(3). Under this section, PTE is calculated as the period of delay "beginning on the date on which an appeal to the Board of Patent Appeals and Interferences was filed under 35 U.S.C. 134 and ending on the date of a final decision in favor of the applicant by the Board of Patent Appeals and Interferences."

In the present application, a first Notice of Appeal was filed on August 24, 2001 (mailed by Applicants on August 22, 2001; copy enclosed). An appeal brief was filed on December 10, 2001 (mailed by Applicants on October 22, 2001; copy enclosed). In response to the final

Applicant: Thomas Apple et al. Attorney's Docket No.: 09857-003001

Serial No.: 08/736,143 Filed: October 28, 1996

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rejection by the Examiner on March 26, 2002, Applicants filed a second Notice of Appeal on June 3, 2002 (mailed by Applicants on May 16, 2002; copy enclosed). A second appeal brief was filed on June 4, 2002 (mailed by Applicants on May 16, 2002; copy enclosed). Calculating PTE from the date of the first Notice of Appeal (August 24, 2001) through the date of the BPAI's order remanding the case to the Examiner (November 19, 2004) results in a PTE calculation of 1183 days.

Applicants respectfully request the correction of the PTE calculation to reflect the period of delay between the appeal and the BPAI remand of 1183 days.

Applicant: Thomas Apple et al. Attorney's Docket No.: 09857-003001

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REMARKS

In consideration of the events described above, Applicant believes the PTE calculation of 0 days is incorrect. Applicants respectfully request the addition of 1183 days of PTO Delay, thus increasing the Total PTE from 0 to 1183 days.

A copy of each of the following documents is provided herein:

- 1) Notice of Allowance including Determination of Patent Term Extension mailed June 9, 2005;
- 2) Notice of Appeal filed August 24, 2001 (mailed by Applicants on August 22, 2001);
- 3) Appeal brief filed December 10, 2001 (mailed by Applicants on October 22, 2001);
- 4) Notice of Appeal filed June 3, 2002 (mailed by Applicants on May 16, 2002); and,
- 5) Appeal brief filed June 4, 2002 (mailed by Applicants on May 16, 2002).

Applicants believe no fee is due for this petition. If any fees are due, however, please apply any charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date:

Fish & Richardson P.C.

225 Franklin Street Boston, MA 02110-2804

Telephone: (617) 542-5070 Facsimile: (617) 542-8906

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Denis G. Maloney

Reg. No. 29,670

and



NITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

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06/09/2005

FISH & RICHARDSON PC 225 FRANKLIN ST BOSTON, MA 02110 EXAMINER

CASCHERA, ANTONIO A

ART UNIT

PAPER NUMBER

2676

DATE MAILED: 06/09/2005

APPLICATION NO. FILING DATE		FIRST NAMED INVENTOR	ATTORNEY DOCKET NO. CONFIRMATION	
08/736,143	10/28/1996	THOMAS APPLE	03294.0027-0	3553

TITLE OF INVENTION: MEDIA WALL FOR DISPLAYING FINANCIAL INFORMATION

APPLN. TYPE	APPLN. TYPE SMALL ENTITY		PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1400	\$0	\$1400	09/09/2005

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

- A. Pay TOTAL FEE(S) DUE shown above, or
- B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B - Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail

Mail Stop ISSUE FEE Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 (703) 746-4000

appropriate. All further cor	rrespondence including the below or directed otherwise	Patent advance or	rders and notificat	ion of maintenance fees i	sired). Blocks 1 through 5 s will be mailed to the current ; and/or (b) indicating a sepa	correspondence address as			
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APPLICATION NO.	FILING DATE		FIRST NAMED INV	'ENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.			
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APPLN. TYPE	SMALL ENTITY	ISSUE F		PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE			
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a. Applicant claims Sh	5. Change in Entity Status (from status indicated above) a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).								
The Director of the USPTO i NOTE: The Issue Fee and Pu interest as shown by the reco	is requested to apply the Issu ablication Fee (if required) wards of the United States Pate	e Fee and Publicat vill not be accepted ant and Trademark	ion Fee (if any) or I from anyone othe Office.	to re-apply any previousl r than the applicant; a reg	y paid issue fee to the applica istered attorney or agent; or th	tion identified above. ne assignee or other party in			
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This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandra, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandra, Virginia 22313-1450.									
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APPLICATION N	iO. F	ILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO	
08/736,143	10/28/1996		THOMAS APPLE	03294.0027-0	3553	
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Determination of Patent Term Extension under 35 U.S.C. 154 (b)

(application filed after June 7, 1995 but prior to May 29, 2000)

The Patent Term Extension is 0 day(s). Any patent to issue from the above-identified application will include an indication of the 0 day extension on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Extension is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571) 272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.

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ey's Docket No.: 09857-003001

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Thomas Apple et al.

Art Unit: 2672

Serial No.: 08/736,143

*Examiner: Blackman, A.

Filed

: October 28, 1996

Title

: MEDIA WALL FOR DISPLAYING FINANCIAL INFORMATION

BOX AF

Commissioner for Patents Washington, D.C. 20231

NOTICE OF APPEAL

Applicant hereby appeals to the Board of Patent Appeals and Interferences from the action dated May 22, 2001, finally rejecting claims 1-38.

A check in the amount of \$310 for the appeal fee is enclosed. Please apply any other charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Date: 08/22/01

Christopher Centurelli Reg. No. 44,599

Fish & Richardson P.C. 225 Franklin Street

Boston, Massachusetts 02110-2804

Telephone: (617) 542-5070 Facsimile: (617) 542-8906

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Thomas Apple et al.

Art Unit : 2672

Serial No.: 08/736,143

Examiner: Blackman, A.

Filed

: October 28, 1996

Title

: MEDIA WALL FOR DISPLAYING FINANCIAL INFORMATION

BOX AF

Commissioner for Patents Washington, D.C. 20231

STATEMENT OF THE SUBSTANCE OF THE INTERVIEW

Applicants confirm that their representatives Denis G. Maloney, Josh Wymard and Christopher Centurelli met with Primary Examiner Jeffery Brier and Examiner Anthony Blackman on March 29, 2001 and that the attached interview summary accurately reflects their discussion. Applicants note, however, that a demonstration of the NASDAQ Custom Logo ticker found at www.nasdaq.com occurred during the interview.

Applicant asks that all claims be allowed. Please apply any other charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

Christopher Centurelli Reg. No. 44,599

Fish & Richardson P.C. 225 Franklin Street

Boston, Massachusetts 02110-2804

Telephone: (617) 542-5070 Facsimile: (617) 542-8906

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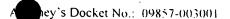


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PATENT 09857-003001 ATTORNEY DOCKET NO.:
The Patent and Trademark Office date stamp sets forth the date of receipt of: Thomas Apple et al. Applicant or Patentee No. (Application, Appeal, Interference, Patent, Reexam) Filing of Issue Date October 28, 1996 Title: Thomas Apple et al. 08/736,143 Filing of Issue Date October 28, 1996 Title: Thomas Apple et al.
[] Transmittal Letter (2 Copies) [] With Pet. for Ext. [] Assignment [] Status Inquiry [] Amendment/Response Pages [] Declaration [x] Maintenance Fee 0 [] Request Certificate of Correction [x] Check \$ 20.00 [] Notice of Appeal [] Deposit Account Order Form (2 Copies) [X] Appeal Brief (3 Copies) 17 Pages [] Issue Fee [] Request Patent Copies [] Petition for Extension Time [] Information Disclosure Statement [] PTO 1449 Form Pages [] Prior Art References-Number of References [] Drawings Sheets Formal Sheets Informal Sheets Amended [] Notice of Missing Parts [] Combined Declaration and Power of Attorney [] Small Entity Statement [] Other
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Appellant: Thomas Apple et al.

: 2672 Art Unit

Serial No.: 08/736,143

Examiner: Blackman, A.

Filed

: October 28, 1996

Title

: MEDIA WALL FOR DISPLAYING FINANCIAL INFORMATION

Board of Patent Appeals and Interferences

Commissioner for Patents Washington, D.C. 20231

BRIEF ON APPEAL

- (1)Real Party in Interest The NASDAQ Stock Market, Inc.
- Related Appeals and Interferences (2) None.
- (3) Status of Claims

Claims 1-38 are in the case. (See Appendix of Claims)

Claims 1-17 and 21-38 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,675,746 ("Marshall") in view of U.S. Patent No. 5,339,392 ("Risberg") and further in view of U.S. Patent No. 5,523,769 ("Lauer").

Claims 18 and 20 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Marshall in view of Risberg in view of Lauer and in further view of U.S. Patent No. 5,589,892 ("Knee").

CERTIFICATE OF MAILING BY FIRST CLASS MAIL

I hereby certify under 37 CFR §1.8(a) that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage on the date indicated below and is addressed to the Commissioner for Patents, Washington, D.C. 20231.

Date of Deposit

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Appellant : Thomas Apple ... A ey's Docket No.: 09857-003001

Serial No.: 08/736,143 Filed: October 28, 1996

Page : 2

Claim 19 has also been rejected; however, the basis for its rejection has not been explicitly identified.

(4) Status of Amendments

No amendments have been filed after the Final Office Action of May 22, 2001 being appealed.

(5) Summary of Invention

I. Background

The invention relates to an improved display for financial trading information. As described in the Background of the Invention section of the application, alphabetic abbreviations have been used to identify securities and their financial trading information since the days of paper, ticker tape reports. Later technologies have changed the medium of these reports from paper to electronic, but have not altered the means for identifying the financial trading information of a given security.

Many people interested in following securities, including some seasoned stock analysts, find the alphabet abbreviations in these displays difficult to follow. In particular, many people find it difficult to remember more than a small subset of the many alphabetic abbreviations assigned by a given stock exchange. Compounding this problem is the fact that, due to historical anomalies and other factors, the assigned alphabetic abbreviations can appear random and may not even attempt to identify a particular traded security.

II. Appellants' Invention

The inventors of the pending application conceived a new, more easily interpreted display for trading information. In particular, the inventors conceived using graphic symbols, such as firm or corporate logos, instead of alphabetic abbreviations to identify the values of each security's financial trading information in a financial display. Appellants' invention offers several non-obvious and important advantages over the older styled displays, including reduced confusion amongst traders observing the displayed financial information and increased brand awareness for the securities traded on an exchange employing the invention.

Appellant : Thomas Apple Serial No. : 08 736,143

Filed

: October 28, 1996

Page :

As is explained in detail below, the combination of references on which the final

rejection is based falls well short of suggesting the claimed invention.

ev's Docket No.: 09857-003001

(6) Issues

The issues on appeal are:

- 1. Whether claims 1 to 38 are unpatentable where appellants' invention represents a classic reversal of long standing conventional practice and wisdom and Marshall, the primary reference used to reject the claims, actually teaches away from the invention.
- 2. Whether claims 18 to 26, 28 to 29, and 34 are unpatentable where the references do not suggest the desirability of combining what is disclosed therein to meet the terms of the rejected claims.
- 3. Whether claims 32 to 36 are unpatentable where the references relied upon do not disclose recited limitations.
 - (7) Grouping of Claims

The claims in each group do not stand or fall together.

- (8) Argument
- I. Summary of the Examiner's Reasons for the Rejection

In a May 22, 2001 Final Office Action, the Examiner rejected all pending claims by repeating his November 11, 2000 Office Action (paper 16) and adding further comments directed to appellants' response submitted March 1, 2001 and appellants' interview with Examiner on March 29, 2001. The Examiner rejected claims 1-17 and 21-38 as obvious under 35 U.S.C. §103(a) on the basis of Marshall in view of Risberg and Lauer. Claims 18 and 20 were rejected as obvious under 35 U.S.C. § 103(a) on the basis of Marshall in view of Risberg and Lauer and in further view of Knee. The Examiner did not explicitly state a basis for the rejection of claim 19.

¹ The Examiner rejected only claims 18 and 20 in further view of a bit map element disclosed in Knee; however, claims 18-26, 28-29 and 34 each contain a bit map limitation. Herein, the rejection of claims 18 and 20 will be treated as a rejection to claims 18-26, 28-29 and 34.

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In the Final Office Action, the Examiner stated:

There are four [sic three] main points that provides links from Marshall to the secondary references. They are as follows:

- (I) The virtual reality world is displayed using sophisticated output devices, such as high resolution screens (see column 1. lines 10-20). This disclosure opens the door for other display devices to utilize the teachings of Marshall's corporate logo including various financial indicators along with the selection of Tokyo and New York stock markets in the virtual reality world where the corporate logo is literally textured on the top or on the side of the polygon (the polygon is equated to the stock's various financial indicators (See column 6, lines 5-43), for example, the ticker display of Risberg et al disclosing various financial instruments and tickers showing trade data (see abstract, lines 17-27).
- (II) Marshall teaches stock and commodity brokers and foreign exchange traders that receive continuous streams of data via communications links from financial trading groups, such as Reuters and Dow Jones as (see column 2, lines 57-60). Marshall implicitly alludes to the means of a ticker display (sophisticated output device) for at least financial data (continuous streams of financial data).
- (III) The selection and interpretation of the Tokyo and New York stock markets suggest some form of sophisticated output device as a means to display the financial and stock market information (see column 6, lines 10-17). Further, combining the various financial data, continuous financial data streams, polygons juxtaposed corporate logo with various financial indictors with-in a sophisticated output device, such as Risberg et al's ticker device which is capable of receiving/displaying real-time data, the main concept of the instant application is met. Admittedly, the merits of the office action rest upon the links/motivation between firstly, Marshall and Riserg [sic] et al.... (Emphasis added, Paper 19, pages 2-3).
- II. Claims 1 to 38 are not obvious where appellants' invention defies long standing conventional practice and Marshall, the primary reference used to reject the claims, actually teaches away from the invention's new direction.

Appellants urge the Board to overturn an obviousness rejection of claims to an invention that, while perhaps appearing simple in hindsight, represents a classic reversal of long standing conventional practice and wisdom. The rejection is particularly unsound because, of the references sought to be combined by the Examiner, one simply restates the prior conventional

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wisdom, and another -- the Examiner's primary reference -- actually teaches away from appellants' invention.

The prior art conventional practice is described in Risberg, and is relied upon by the Examiner in each of his rejections. Risberg carries forward the age-old stock ticker format, in which stock values are juxtaposed with alphabetic abbreviations representing the names of companies. For decades now, the proliferation of companies trading their stocks has produced an alphabet soup of often-arbitrary abbreviations that have made the various stock tickers difficult to follow and interpret. Yet, the alphabetic tradition is so engrained in history and culture that its use in financial displays has persisted since the inception of the ticker tape in the late 1860s.

Appellants' invention makes a sharp break from this tradition by displaying graphic symbols, such as a company logo, in juxtaposition with financial instrument values in an electronic display.

The Examiner relies on his primary reference Marshall for the use of company logos in a financial display. But Marshall teaches away from the use of logos in combination with financial values. Instead of actually displaying the values. Marshall creates a whole new "virtual reality" graphic display in which financial values, instead of being displayed, control the shape, location, color and other parameters of graphical "metaphors":

When abstract information, such as financial information, is displayed in a virtual reality world, it is represented by real world objects in three dimensional form, called metaphors. (Col. 3, lines 52 to 53).

Indeed, Marshall explicitly teaches away from the display of financial values juxtaposed with graphic symbols:

It is difficult, however, to view numerical data from many sources in real-time to notice overall trends and to consider the distinct underlying characteristics of each security in ones portfolio. Even if the information is displayed in graphical form on each computer screen, trends that concern all sources are difficult to spot. It is also difficult to visualize the behavior of all the dimensions underlying individual security elements. (Col. 2, line 34 to 40).

Further, graphical representations are more likely than tabular representations to show patterns and irregularities because humans are

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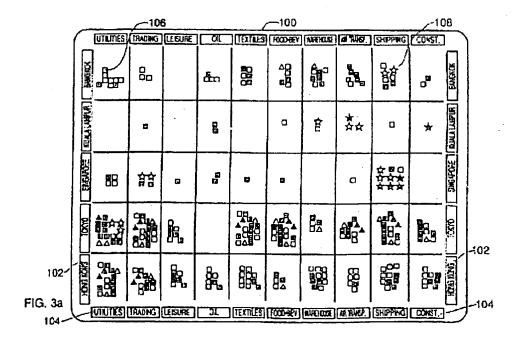
much better at pattern and scene recognition than at number processing and comparison. (Col. 2, line 65 to col. 3, line 4).

Current user interfaces and display technologies for large quantities of financial information are limited. A money manager is unable to "immerse" himself or herself into financial data representing many world markets and manipulate this data graphically. In particular, money managers and financial analyst currently cannot use virtual reality techniques to analyze financial data. (Col. 3., lines 8 to 15).

The virtual reality world created by the present invention does not map real world objects. Rather, the information displayed in virtual reality world created by the present invention is abstract information about the real world that does not have a physical object equivalent in the real world. (Col. 3, lines 41 to 46).

If structured correctly, a virtual reality world has the advantage of presenting a very large amount of information in pictorial form. (Col. 4, lines 16 to 18).

Figure 3a in Marshall is illustrative of this virtual reality approach:



Appellants' invention, to the contrary, presents a new and improved display of financial trading information. In particular, each of the independent claims of appellants' invention is

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directed toward using graphic symbols instead of a security's alphabetic abbreviation in juxtaposition with the values or textual data of its trading information.

For example: claim 1 requires monitors to "render the graphic symbols and values corresponding to the financial instruments"; claim 15 requires monitors to display "graphic symbols and values corresponding to the financial instruments"; claim 16 requires displaying "graphic symbols and values corresponding to the financial instruments in the feed"; claim 17 recites scrolling market data comprising "a company logo juxtaposed with financial instruments including real-time textual data"; claim 27 recites displaying market data comprising "a company logo and stock ticker real-time textual data associated with the company logo"; claim 32 requires displaying a moving financial instrument ticker of "graphic symbols juxtaposed with corresponding values of the financial instruments"; and finally claim 36 requires displaying "graphic symbols juxtaposed with values corresponding to the financial instruments". (Emphasis added). Thus, each of appellants' independent claims is directed toward using graphic symbols, such as firm or corporate logos, to identify the actual values or textual data of a security's financial trading information.

The Examiner's rejections are contrary to fundamental doctrines governing the resolution of obviousness questions. Inventions are *not* obvious when they defy long standing conventional practice, and when the prior art teaches away from the invention's new direction.

At law:

[P]roceeding contrary to the accepted wisdom is "strong evidence of unobviousness."

In re Hedges, 783 F.2d 1038, 1041, 228 USPQ 685 (Fed. Cir. 1986) citing W.L. Gore & Assoc., Inc. v. Garlock, Inc., 721 F.2d 1540, 1552, 220 USPQ 303 (Fed. Cir. 1983).

Indeed, the years of use of conventional stock tickers and corporate logos by those of skill in the art without combining their properties weighs strongly against a finding that the combination is obvious. See Arkie Lures, Inc. v. Gene Larew Tackle, Inc., 119 F.3d 953, 958 (Fed. Cir. 1997) (reversing a district court decision where "years of use of salty bait and of plastic lures, without combining their properties, weighs on the side of the unobviousness of the combination").

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In addition, there is no suggestion to combine if a reference teaches away from its combination with another source. A reference may be said to teach away when a person of ordinary skill, upon reading the reference, would be led in a direction divergent from the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant. *Tec Air. Inc. v. Denso Manufacturing Michigan Inc.*, 192 F.3d 1353, 1360, 52 USPQ2d 1294 citing In re Gurley 27 F.3d 551, 553, 31 USPQ2d 1130 (Fed. Cir. 1994).

Here, the entire thrust of Marshall leads one of ordinary skill away from a display having financial values or technical data, as claimed by appellants, and toward a display having information displayed in pictorial form. (Col. 4, lines 16-18). As such. Marshall teaches one of skill to take a direction divergent from the path taken by appellants.

By ignoring these fundamental legal principles, the Examiner has resorted to hindsight reconstruction, an additional violation of settled authority:

It is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the prior art so that the claimed invention is rendered obvious. ¹⁵ This court has previously stated that "[o]ne cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention." ¹⁶ In re Fritch, 23 USPQ2d 1780, 1784 (Fed. Cir. 1992).

As the Federal Circuit Court of Appeals said in *In re Dembiczak*, 175 F.3d 994, 999, 50 USPQ2d 1614 (Fed. Cir. 1999):

Measuring a claimed invention against the standard established by §103 requires the oft-difficult but critical step of casting the mind back to the time of the invention, to consider the thinking of one of ordinary skill in the art, guided only by the references themselves.... Close adherence to this methodology is especially important in the case of less technologically complex inventions, where the very ease with which the inventions can be understood may prompt one 'to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher.'

¹⁵ In re Gorman, 933 F.2d 982, 987, 18 USPQ2d 1885, 1888 (Fed. Cir. 1991). See also Interconnect Planning Corp. v. Feil, 774 F.2d 1132, 1138, 227 USPQ 543, 547 (Fed. Cir. 1985).

¹⁶ In re Fine, 837 F.2d at 1075, 5 USPQ2d at 1600.

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Our case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a shown of the teaching or motivation to combine prior art references.

"The mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification" *In re Gordon*, 221 USPQ 1125, 1127 (Fed. Cir. 1984). Accordingly, the rejection to claims 1-38 should be reversed.

III. Claims 18 to 26, 28 to 29, and 34 are patentable where the references do not suggest the desirability of combining what is disclosed therein to meet the terms of the rejected claims.

A number of the rejected dependent claims contain additional limitations that further weigh in favor of non-obviousness. In particular, dependent claims 18-26, 28-29, and 34 each require a bit map data corresponding to corresponding to a company logo.

In determining obviousness, "[t]he claimed invention must be considered as a whole, and the question is whether there is something in the prior art as a whole to suggest the desirability, and thus the obviousness, of making the combination." *Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick*, 221 USPQ 481, 488 (Fed. Cir. 1984).

Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination. Under Section 103, teachings of references can be combined only if there is some suggestion or incentive to do so. *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 221 USPQ 929, 933 (Fed. Cir. 1984) (emphasis in original, footnotes omitted).

"The critical inquiry is whether 'there is something in the prior art as a whole to suggest the desirability, and thus the obviousness, of making the combination." Fromson v. Advance Offset Plate, Inc., 225 USPQ 26, 31 (Fed. Cir. 1985).

"The mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification." *In re Gordon*, 221 USPQ 1125, 1127 (Fed. Cir. 1984).

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A review of Knee fails to provide any motivation for its combination with Marshall and Risberg for rejecting claims 18 and 20.² Rather. Knee. like Risberg shows a conventional display of financial information in FIG. 32 and no suggestion or motivation is found for using bitmap data in the manner taught and claimed by appellants. Accordingly, claims 18-26, 28-29, and 34 are non-obvious over the art of record.

IV. Claims 32 to 36 are patentable for the additional reason that the references relied upon do not disclose recited limitations.

Claims 32 to 36 contain additional limitations that support their patentability. For example, claim 32 requires accessing graphic symbols in accordance with extracted instrument identifiers and claim 36 requires retrieving graphics symbols associated with extracted identifiers. The references relied upon by the examiner do not disclose, either explicitly or inherently, these limitations. For that reason, claim 32, its dependant claims 33 to 35 and claim 36 are patentable over the cited references.

Conclusion

For the foregoing reasons, it is submitted that the Examiner's rejection of claims 1 to 38, claims 18 to 26, 28 to 29, and 34, and claims 32 to 36 was erroneous, and reversal of the decision is respectfully requested.

The brief fee of \$320 is enclosed. Please apply any other charges or credits to Deposit Account No. 06-1050.

Date: (0)

Respectfully submitted

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² And likewise claims 19, 21-26, 28-29, and 34

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Appendix of Claims

A system for dynamically displaying graphic symbols and value information for 1. financial instruments comprising:

an input port to receive a feed containing identifiers and corresponding values of financial instruments;

a filter to extract from the feed the identifiers and corresponding values of the financial instruments;

an input processor comprising a memory to store the extracted financial instrument identifiers and corresponding values;

a database that stores graphic symbols that represent entities whose financial instruments are identified by the instrument identifiers in the feed and that can be accessed by financial instrument identifiers to provide graphic symbols corresponding to the financial instrument identifiers in the feed;

a display controller for forming display signals with the graphic symbols and values corresponding to the financial instruments in the feed; and

a video wall including

a plurality of individual monitors arranged into a composite display, and with the display controller receiving the display signals to render the graphic symbols and values corresponding to the financial instruments in the feed on the individual monitors.

- The system of claim 1 wherein the feed is a stock ticker feed and the financial 2. instruments are stocks traded over an exchange.
- The system of claim 2 wherein the values include the current trading price of the 3. stocks.
- The system of claim 3 wherein the graphic symbols include corporate logos for companies issuing the stocks.

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5. The system of claim 4 further comprising:

a control system and wherein the control system processes the display signals such that the video wall displays a moving ticker display of corporate logos and values of trades in stocks.

- 6. The system of claim 1 wherein the display controller further includes a plurality of display processors coupled to the input processor and each provided from a respective one of the plurality of display signals.
- 7. The system of claim 6 further including a network to couple the input processor to the plurality of display processors.
- 8. The system of claim 7 further including a control processor coupled to the display processors and the input processor via the network to synchronize the display processors.
- 9. The system of claim 1 wherein the display signals are fed to the individual monitors to render a different graphic symbol and associated financial data on each of the monitors.
- 10. The system of claim 6 wherein the feed is a stock ticker feed, and wherein the display processors include stock ticker display processors to display a moving stock ticker on the video wall.
- 11. The system of claim 1 wherein the video wall further includes video wall processors for processing the display signals for display on the monitors.
- 12. The system of claim 1 further including a plurality of routing switches coupled between the display controller and the video wall for controlling the routing of the display signals to the monitors.

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13. The system of claim 1 further including a video source, coupled to the routing switches, for producing video signals for display on the video wall.

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- 14. The system of claim 1 further including: an audio source for producing audio signals; and a speaker to produce the audio signals...
- 15. A system for dynamically displaying financial information comprising:
 a first input port for receiving a first feed containing identifiers and corresponding values
 of financial instruments;
 - a second input port for receiving a second feed containing financial data;
- a filter to extract from the first feed the identifiers and corresponding values of the financial instruments and from the second feed the financial data;
- a memory to store the extracted financial instrument identifiers, corresponding values. and financial data;
- a data structure associating the extracted financial instrument identifiers with corresponding graphic symbols, the graphic symbols being publicly acknowledged identifiers of entities whose financial instruments are identified by the instrument identifiers in the feed;
- a video processor to produce a first display signal with the graphic symbols and values corresponding to the financial instruments in the feed and a second display signal with the financial data; and
 - a video wall including
- a plurality of individual monitors arranged into a composite display to receive the first and second display signals and display the financial data and the graphic symbols and values corresponding to the financial instruments.
- 16. A method for dynamically displaying graphic symbols and value information for financial instruments on a video wall including a plurality of individual monitors arranged into a larger display, the method comprising:

receiving a feed containing identifiers and corresponding values of financial instruments;

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extracting from the feed the identifiers and corresponding values of the financial instruments;

storing the extracted financial instrument identifiers and corresponding values:

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using the extracted financial instrument identifiers to find graphic symbols that are logos of entities associated with the extracted identifiers;

forming a display signal with the graphic symbols and values corresponding to the financial instruments in the feed; and

displaying on the video wall the graphic symbols and values corresponding to the financial instruments in the feed.

17. A system for displaying stock ticker information comprises:

a display; and

an electronic device that produces a signal that when fed to the display scrolls market data across the display, said market data comprising a company logo juxtaposed with financial information including real-time textual data associated with financial instruments of entities identified by instrument identifiers in a feed received by the system.

- 18. The system of claim 17 wherein the electronic device is a computer, and the computer is responsive to a source containing financial information and a source that contains bit map data corresponding to the company logo.
- 19. The system of claim 18 wherein the financial information includes company identifiers and wherein the company identifiers are used to access bit maps corresponding to the company logos.
- 20. The system of claim 18 wherein the source of bitmaps is contained in a database of logo bitmaps.
- 21. The system of claim 18 wherein the source containing financial information is a database of financial data.

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22. The system of claim 18 wherein the real-time textual data scrolled on the display are updated according to market conditions.

- 23. The system of claim 22 further comprising a filter coupled to a source containing financial data, said filter extracting the real-time textual data and placing the real-time textual data in a database.
- 24. The system of claim 17 further comprising a correlator that correlates a bitmap of a company logo with financial data contained in a database.
- 25. The system of claim 24 wherein the real-time textual data scrolled on the display are updated according to market conditions.
- 26. The system of claim 24 further comprising a filter coupled to a source containing financial data, said filter extracting the financial data and placing the financial data in a database.
- 27. A method for displaying stock ticker information comprises:
 displaying market data across an electronic monitor, said market data comprising a
 company logo and stock ticker real-time textual data associated with the company logo, the real-

time textual data juxtaposed with the company logo.

- 28. The method of claim 27 wherein displaying associates a data source containing financial information and a data source that contains bit map data corresponding to the company logo.
- 29. The method of claim 28 wherein the financial information includes company identifiers and wherein the company identifiers are used to access bit maps corresponding to the company logos.

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The method of claim 27 wherein displaying market data occurs with market conditions.

- The method of claim 27 further comprising filtering the source containing financial data, and extracting the data to place the data in a database.
 - 32. A method for displaying stock ticker information comprises:

extracting from a data feed having values of financial instruments, instrument identifiers and the values of the financial instruments;

accessing graphic symbols in accordance with the extracted instrument identifiers; associating the graphic symbols with the corresponding values of the financial instruments to produce a financial instrument ticker; and

displaying the financial instrument ticker, as a moving financial instrument ticker of graphic symbols juxtaposed with corresponding values of the financial instruments across a video display.

33. The method of claim 32 wherein the data feed of values includes identifiers that correspond to the financial instruments, and wherein accessing comprises:

accessing the graphic symbols by using the identifiers to associate the graphic symbols with the financial data.

- 34. The method of claim 32 further comprising:

 correlating a bitmap of a company logo with financial information contained in a database.
- 35. The method of claim 32 further comprising updating data on the financial instrument ticker in accordance with current market conditions.

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A method for dynamically displaying graphic symbols and value information for 36. financial instruments, the method comprising:

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receiving a feed containing identifiers and corresponding values of financial instruments; extracting from the feed the identifiers and corresponding values of the financial instruments;

retrieving graphic symbols associated with the extracted identifiers;

forming a display signal including the retrieved graphic symbols and values corresponding to the financial instruments; and

displaying on a monitor the graphic symbols juxtaposed with values corresponding to the financial instruments.

- The system of claim 17 wherein the market data corresponds to trades in financial 37. instruments and the company logo is associated with financial information corresponding to a market price for the financial instrument.
- The method of claim 27 wherein the stock ticker information comprises trades of 38. financial instruments.

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Thomas Apple et al. Enclosures	·———————		·	:
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Thomas Apple et al.

Art Unit : 2672

Serial No.: 08/736,143

Examiner: Blackman, A.

Filed

: October 28, 1996

Title

: MEDIA WALL FOR DISPLAYING FINANCIAL INFORMATION

BOX AF

Commissioner for Patents Washington, D.C. 20231

NOTICE OF APPEAL

Applicant hereby appeals to the Board of Patent Appeals and Interferences from the action dated March 26, 2002, rejecting claims 1-38.

The Notice of Appeal fee of \$320 was already paid when applicant's previous Notice of Appeal was submitted. We believe that no fee is due. If this is incorrect please charge this fee, and apply any other charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

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CERTIFICATE OF MAILING BY FIRST CLASS MAIL

I hereby certify under 37 CFR §1.8(a) that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage on the date indicated below and is addressed to the Commissioner for Patents, Washington, D.C. 20231.

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Attorney's Docket No.: 09857-003001

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Appellant: Thomas Apple et al.

Art Unit : 2672

Serial No.: 08/736,143

Examiner: Blackman, A.

Filed

: October 28, 1996

Title

: MEDIA WALL FOR DISPLAYING FINANCIAL INFORMATION

Board of Patent Appeals and Interferences

Commissioner for Patents Washington, D.C. 20231

BRIEF ON APPEAL

- (1) Real Party in Interest The NASDAQ Stock Market, Inc.
- (2) Related Appeals and Interferences None.
- Status of Claims (3)

Claims 1-38 are in the case. (See Appendix of Claims)

Claims 1-3, 6-13, 15 and 161 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,270,922 ("Higgins") in view of U.S. Patent No. 5,523,769 ("Lauer").

CERTIFICATE OF MAILING BY FIRST CLASS MAIL

I hereby certify under 37 CFR §1.8(a) that this correspondence is being deposited with the United States Postal Service as first class mail with sufficient postage on the date indicated below and is addressed to the Commissioner for Patents, Washington, D.C. 20231.

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Jennifer Hess Carleton

Typed or Printed Name of Person Signing Certificate

¹ Claim 16 was not mentioned in the summary of the Examiner's rejection but was treated as rejected in the body of this rejection.

Appellant: Thomas Apple et al

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Claims 4-5, 17-31, 37 and 382 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,270,922 ("Higgins") in view of U.S. Patent No. 5,523,769 ("Lauer") and further in view of U.S. Patent No. 5,761,689 ("Rayson").

Claims 32-36 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,270,922 ("Higgins").

Claim 34 was rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5.270.922 ("Higgins") in view of U.S. Patent No. 5,761,689 ("Rayson").

Claim 14 was rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,270,922 ("Higgins"), in view of U.S. Patent No. 5,761,689 ("Rayson"), further in view of U.S. Patent No. 5,523,769 ("Lauer") and still further in view of U.S. Patent No. 5,339,392 ("Risberg").

Status of Amendments (4)

No amendments have been filed after the Office Action of March 26, 2002 being appealed. Appellants filed a prior Brief on Appeal on December 10, 2001 that resulted in the Office Action being appealed from.

Summary of Invention (5)

Background I.

The invention relates to an improved mechanism for displaying financial trading information. As described in the Background of the Invention section of the application, alphabetic abbreviations (commonly referred to in the art as "stock ticker symbols") have been used to identify securities and their financial trading information since the days of paper, ticker tape reports. Later technologies have changed the medium of these reports from paper to electronic, but have not altered the means used to identify the financial trading information of a given security.

Many people interested in following securities, including some seasoned stock analysts, find the alphabet abbreviations in these displays difficult to follow. In particular, many people

² Claims 37 and 38 were not mentioned in the summary of the Examiner's rejection but were treated as rejected in the body of this rejection.

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find it difficult to remember more than a small subset of the many alphabetic abbreviations assigned by a given stock exchange. Compounding this problem is the fact that, due to historical anomalies and other factors, the assigned alphabetic abbreviations can appear random and may not even attempt to identify a particular traded security. In fact, some assigned alphabetic abbreviations may purport to identify a particular security of a well-known company, when in fact it actually identifies a security of a less well-known company.

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II. Appellants' Invention

The inventors of the pending application conceived of a new, more easily interpreted display for trading information. In particular, the inventors conceived using graphic symbols, such as firm or corporate logos, to replace alphabetic abbreviations as identifiers for values of each security's financial trading information in a financial display. Appellants' invention offers several non-obvious and important advantages over the older styled displays, including reduced confusion amongst traders observing the displayed financial information and increased brand awareness for the securities traded on an exchange employing the invention.

As is explained in detail below, the primary reference Higgins and the combination of references with Higgins on which rejections in the office action are based fall well short of describing or suggesting the claimed invention.

(6) Issues

The issues on appeal are:

- 1. Whether claims 1 to 31, 37 and 38 are unpatentable where Appellants' invention represents a classic reversal of long standing conventional practice and wisdom and Higgins, the primary reference in combination with other references to reject the claims, merely discloses the conventional approach and none of the secondary references supply the missing teachings.
- 2. Whether claims 18 to 26, 28 to 29, and 34 are unpatentable where the references do not suggest the desirability of combining what is disclosed therein to meet the terms of the rejected claims.
- 3. Whether claims 32 to 36 are unpatentable where the references relied upon do not disclose recited limitations.

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(7) Grouping of Claims

The claims in each group do not stand or fall together.

(8) Summary of the Examiner's Reasons for the Rejection

In the Office Action of March 26, 2002, the Examiner removed all prior rejections of the claims over references to Marshall U.S. Patent 5,675,746, Risberg U.S. Patent 5,339,392 and Lauer-U.S. Patent 5,523,769.

In the March 26, 2002 Office Action being appealed from the examiner set out five new bases for rejection of the claims. These rejections were all based on U.S. Patent No. 5,270,922 ("Higgins") taken alone or in various combinations with U.S. Patent No. 5,523,769 ("Lauer"), U.S. Patent No. 5,761,689 ("Rayson") and U.S. Patent No. 5,339,392 ("Risberg").

In the Office Action, the Examiner stated in part:

Higgins discloses "a data processing and communication system [that] ... comprising ... the means of a database that stores graphic symbols that represent entities whose financial instruments are identified by instrument identifiers in the feed and that can be accessed by financial instrument identifiers to provide graphic symbols corresponding to the financial instrument identifiers in the feed (Fig. 3, Abstract, lines 8-12, col. 6, line 16 to col. 7, line 28, and col. 9, lines 25-29); a display controller for forming display signals with the graphic symbols and values corresponding to financial instruments in the feed (col. 2, lines 15-18, col. 3, lines 30-40);

- (9) Argument
- I. Claims 1 to 31, 37 and 38 are distinct where appellants' invention defies long standing conventional practice and Higgins the primary reference merely restates prior conventional wisdom and the secondary references fail to supply the missing teachings.

Appellants urge the Board to overturn a rejection of claims to an invention that, while perhaps appearing simple in hindsight, represents a classic reversal of long standing conventional practice and wisdom. The rejection is particularly unsound because the primary reference simply

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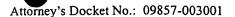
restates the prior conventional wisdom, and the other references fail to supply the missing teachings of Appellants' invention.

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The prior art conventional practice is described in Higgins, and is relied upon by the Examiner in each of his rejections. Higgins carries forward the age-old stock ticker symbol format, in which stock values are juxtaposed with alphabetic abbreviations representing the names of companies. For decades now, the proliferation of companies trading their stocks has produced an alphabet soup of often-arbitrary abbreviations that have made the various stock tickers difficult to follow and interpret. Yet, the alphabetic tradition is so engrained in history and culture that its use in financial displays has persisted since the inception of the ticker tape in the late 1860s.

Appellants' invention makes a sharp break from this tradition by displaying graphic symbols, such as a company logo, in juxtaposition with financial instrument values in an electronic display. In embodiments of the invention, the company logo and juxtaposed values are displayed as a logo-based stock ticker that moves across a monitor.

The Examiner relies on his primary reference Higgins for the use of graphic symbols. But Higgins actually is devoid of any teachings of graphic symbols in combination with financial values. In fact the word "graphic" is not mentioned once in Higgins, nor does Higgins teach any equivalent to a graphic symbol that represents an entity whose security is identified by instrument identifiers in a feed. Instead Higgins simply teaches the conventional alphabetic abbreviation stock ticker symbol.



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Figure 2, item 143 in Higgins is illustrative of teaching of stock ticker symbols:

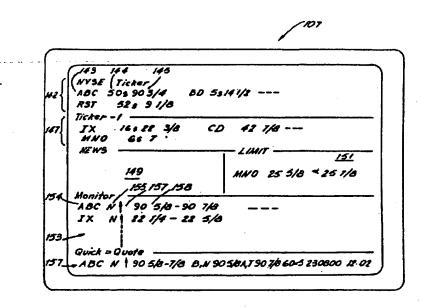


FIG. 2

Appellants' invention, to the contrary, presents a new and improved display of financial trading information. In particular, each of the independent claims of Appellants' invention is directed toward using graphic symbols or company logos instead of a security's alphabetic abbreviation in juxtaposition with the values or textual data of its trading information.

For example: claim 1 requires monitors to "render the graphic symbols and values corresponding to the financial instruments"; claim 15 requires monitors to display "graphic symbols and values corresponding to the financial instruments"; claim 16 requires displaying "graphic symbols and values corresponding to the financial instruments in the feed"; claim 17 recites scrolling market data comprising "a company logo juxtaposed with financial instruments including real-time textual data"; and claim 27 recites displaying market data comprising "a company logo and stock ticker real-time textual data associated with the company logo." (Emphasis added). Thus, each of Appellants' independent claims in this set is directed toward using graphic symbols, such as firm or corporate logos, to identify the actual values or textual data of a security's financial trading information.

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The Examiner's rejections are contrary to fundamental doctrines governing the resolution of obviousness questions. Inventions are *not* obvious when they defy long standing conventional practice.

At law:

Obviousness

[P]roceeding contrary to the accepted wisdom is "strong evidence of unobviousness." In re Hedges, 783 F.2d 1038, 1041, 228 USPQ 685 (Fed. Cir. 1986) citing W.L. Gore & Assoc., Inc. v. Garlock, Inc., 721 F.2d 1540, 1552, 220 USPO 303 (Fed. Cir. 1983).

Indeed, the years of use of conventional stock tickers and corporate logos by those of skill in the art without combining their properties weighs *strongly against* a finding that the combination is obvious. *See Arkie Lures, Inc. v. Gene Larew Tackle, Inc.*, 119 F.3d 953, 958 (Fed. Cir. 1997) (reversing a district court decision where "years of use of salty bait and of plastic lures, without combining their properties, weighs on the side of the unobviousness of the combination").

By ignoring these fundamental legal principles, the Examiner has resorted to hindsight reconstruction, an additional violation of settled authority:

It is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the prior art so that the claimed invention is rendered obvious. ¹⁵ This court has previously stated that "[o]ne cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention." ¹⁶ In re Fritch, 23 USPQ2d 1780, 1784 (Fed. Cir. 1992).

As the Federal Circuit Court of Appeals said in *In re Dembiczak*, 175 F.3d 994, 999, 50 USPQ2d 1614 (Fed. Cir. 1999):

Measuring a claimed invention against the standard established by §103 requires the oft-difficult but critical step of casting the mind back to

¹⁵ In re Gorman, 933 F.2d 982, 987, 18 USPQ2d 1885, 1888 (Fed. Cir. 1991). See also Interconnect Planning Corp. v. Feil, 774 F.2d 1132, 1138, 227 USPQ 543, 547 (Fed. Cir. 1985).

¹⁶ In re Fine, 837 F.2d at 1075, 5 USPQ2d at 1600.

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the time of the invention, to consider the thinking of one of ordinary skill in the art, guided only by the references themselves.... Close adherence to this methodology is especially important in the case of less technologically complex inventions, where the very ease with which the inventions can be understood may prompt one 'to fall victim to the insidious effect of a hindsight syndrome wherein that which only the inventor taught is used against its teacher.'

Our case law makes clear that the best defense against the subtle but powerful attraction of a hindsight-based obviousness analysis is rigorous application of the requirement for a showing of the teaching or motivation to combine prior art references.

"The mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification" *In re Gordon*, 221 USPQ 1125, 1127 (Fed. Cir. 1984).

Accordingly, the rejections to claims 1-31, 37 and 38 should be reversed.

II. Claims 18 to 26, 28 to 29, and 34 are patentable where the references do not suggest the desirability of combining what is disclosed therein to meet the terms of the rejected claims.

A number of the rejected dependent claims contain additional limitations that further weigh in favor of non-obviousness. In particular, dependent claims 18-26, 28-29, and 34 each require a bit map data corresponding to a company logo.

A review of Rayson fails to provide any motivation for its combination with Higgins and Lauer for rejecting claims 18 to 26, 28 and 29. Rayson does not relate to the display of financial information. Rayson describes an auto correcting text feature in a word processing application. The feature allows a user to select amongst a plurality of auto-correct options. These options allow the user to change straight quotes to smart quotes, correct words that begin with initial uppercase letters, modify capitalizing the first letter of any sentence that is not capitalized, and replace text entered by the user with either plain text, formatted text, a graphic picture or other type of object. Types of graphics that Rayson describes are a logo or a picture. In Rayson a user

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manually configures the auto-correct feature to replace typed text with the graphic in a word processor document.

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At law:

In determining obviousness, "[t]he claimed invention must be considered as a whole, and the question is whether there is something in the prior art as a whole to suggest the desirability, and thus the obviousness, of making the combination." Lindemann Maschinenfabrik GMBH v. American Hoist & Derrick, 221 USPQ 481, 488 (Fed. Cir. 1984).

Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination. Under Section 103, teachings of references can be combined only if there is some suggestion or incentive to do so. *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 221 USPQ 929, 933 (Fed. Cir. 1984) (emphasis in original, footnotes omitted).

"The critical inquiry is whether 'there is something in the prior art as a whole to suggest the desirability, and thus the obviousness, of making the combination." Fromson v. Advance Offset Plate, Inc., 225 USPQ 26, 31 (Fed. Cir. 1985).

"The mere fact that the prior art could be so modified would not have made the modification obvious unless the prior art suggested the desirability of the modification." *In re Gordon*, 221 USPQ 1125, 1127 (Fed. Cir. 1984).

When viewing the invention as a whole, it is clear that the prior art does not suggest the desirability of modifying Higgins and Lauer with Rayson. Neither Higgins nor Lauer motivate one of ordinary skill in the art to look to graphic symbols, corporate logos or bit map images to solve the identification problems resulting by the use of conventional stock ticker symbols. Moreover, Rayson does not suggest the desirability of replacing stock ticker symbols to juxtapose a graphic symbol with financial data. Thus, absent any suggestion to combine their teachings, there is no motivation found for using logos or bit map data in a manner taught and claimed by Appellants. Accordingly, claims 18-26, 28 and 29 are nonobvious over the art of record and the rejections of those claims should be reversed.

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Claims 32 to 36 are patentable for the additional reason that III. the reference relied upon does not disclose recited limitations.

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Claims 32 to 36 contain limitations that are not described by Higgins. For example, claim 32 requires accessing graphic symbols in accordance with extracted instrument identifiers and claim 36 requires retrieving graphics symbols associated with extracted identifiers. Higgins does not disclose, either explicitly or inherently, these limitations. The examiner considers that Higgins discloses, "a database that stores graphic symbols that represent entities whose financial instruments are identified by instrument identifiers." This is incorrect. Higgins discloses stock ticker alphabetical symbols not graphic symbols. Higgins stores the stock ticker symbols to form a list of followed stocks. Higgins does not use the stock ticker symbol to access a database of graphic symbols that represent entities whose financial instruments are identified by instrument identifiers. Rather, as clearly shown in FIG. 4 of Higgins, the stock ticker symbol from an incoming ticker message is used to access a database to see if it corresponds to one of stored stock ticker symbols on a user's followed stocks list or defined list of securities to construct a ticker. Nowhere does Higgins disclose or suggest that an identifier in an incoming stock ticker message is used to retrieve a graphic symbol that represents an entity's financial instrument identified by the ticker message.

At law:

Anticipation

A claim is "anticipated," when a single prior art reference discloses all features spelled out in the claim, either explicitly or inherently. Tyler Refrigeration v. Kysor Indus. Corp., 777 F.2d 687, 689 (Fed. Cir. 1985); Scripps Clinic & Research Found. v. Genentech Inc., 927 F.2d 1565, 1576, 18 USPQ2d 1001, 1010 (Fed. Cir. 1991); Glaverbel Societe Anonyme v. Northlake Marketing & Supply, Inc., 45 F.3d 1550 (Fed. Cir. 1995).

Accordingly, Higgins cannot anticipate claims 32 and 36. Claim 32 requires displaying the financial instrument ticker, as a moving financial instrument ticker of graphic symbols juxtaposed with corresponding values of the financial instruments across a video display. Higgins does not describe this action and hence cannot anticipate claim 32 and dependent claims 33-35. Higgins also does not describe displaying on a monitor the graphic symbols juxtaposed

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with values corresponding to the financial instruments, as in claim 36 and hence cannot anticipate claim 36. Accordingly, claims 32-36 are not anticipated by the art of record and the rejection of those claims should be reversed.

Conclusion

For the foregoing reasons, it is submitted that the Examiner's rejections of claims 1-3, 6-13 and 15; claims 4-5 and 17-31; claims 32-36; claim 34; and claim 14 are erroneous, and reversal of the decision is respectfully requested.

The fee for submission of the brief of \$320 was already paid when the previous brief was submitted. We believe that no fee is due. If this is incorrect please charge this fee and apply any other charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

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Appendix of Claims

1. A system for dynamically displaying graphic symbols and value information for financial instruments comprising:

an input port to receive a feed containing identifiers and corresponding values of financial instruments;

a filter to extract from the feed the identifiers and corresponding values of the financial instruments;

an input processor comprising a memory to store the extracted financial instrument identifiers and corresponding values;

a database that stores graphic symbols that represent entities whose financial instruments are identified by the instrument identifiers in the feed and that can be accessed by financial instrument identifiers to provide graphic symbols corresponding to the financial instrument identifiers in the feed;

a display controller for forming display signals with the graphic symbols and values corresponding to the financial instruments in the feed; and

a video wall including

a plurality of individual monitors arranged into a composite display, and with the display controller receiving the display signals to render the graphic symbols and values corresponding to the financial instruments in the feed on the individual monitors.

- 2. The system of claim 1 wherein the feed is a stock ticker feed and the financial instruments are stocks traded over an exchange.
- 3. The system of claim 2 wherein the values include the current trading price of the stocks.
- 4. The system of claim 3 wherein the graphic symbols include corporate logos for companies issuing the stocks.

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5. The system of claim 4 further comprising:

a control system and wherein the control system processes the display signals such that the video wall displays a moving ticker display of corporate logos and values of trades in stocks.

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- 6. The system of claim 1 wherein the display controller further includes a plurality of display processors coupled to the input processor and each provided from a respective one of the plurality of display signals.
- 7. The system of claim 6 further including a network to couple the input processor to the plurality of display processors.
- 8. The system of claim 7 further including a control processor coupled to the display processors and the input processor via the network to synchronize the display processors.
- 9. The system of claim 1 wherein the display signals are fed to the individual monitors to render a different graphic symbol and associated financial data on each of the monitors.
- 10. The system of claim 6 wherein the feed is a stock ticker feed, and wherein the display processors include stock ticker display processors to display a moving stock ticker on the video wall.
- 11. The system of claim 1 wherein the video wall further includes video wall processors for processing the display signals for display on the monitors.
- 12. The system of claim 1 further including a plurality of routing switches coupled between the display controller and the video wall for controlling the routing of the display signals to the monitors.

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13. The system of claim 1 further including a video source, coupled to the routing switches, for producing video signals for display on the video wall.

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- 14. The system of claim 1 further including: an audio source for producing audio signals; and a speaker to produce the audio signals..
- 15. A system for dynamically displaying financial information comprising:
 a first input port for receiving a first feed containing identifiers and corresponding values of financial instruments;
 - a second input port for receiving a second feed containing financial data;
- a filter to extract from the first feed the identifiers and corresponding values of the financial instruments and from the second feed the financial data;
- a memory to store the extracted financial instrument identifiers, corresponding values, and financial data;
- a data structure associating the extracted financial instrument identifiers with corresponding graphic symbols, the graphic symbols being publicly acknowledged identifiers of entities whose financial instruments are identified by the instrument identifiers in the feed;
- a video processor to produce a first display signal with the graphic symbols and values corresponding to the financial instruments in the feed and a second display signal with the financial data; and
 - a video wall including
- a plurality of individual monitors arranged into a composite display to receive the first and second display signals and display the financial data and the graphic symbols and values corresponding to the financial instruments.
- 16. A method for dynamically displaying graphic symbols and value information for financial instruments on a video wall including a plurality of individual monitors arranged into a larger display, the method comprising:

receiving a feed containing identifiers and corresponding values of financial instruments;

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extracting from the feed the identifiers and corresponding values of the financial instruments:

storing the extracted financial instrument identifiers and corresponding values;
using the extracted financial instrument identifiers to find graphic symbols that are logos
of entities associated with the extracted identifiers;

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forming a display signal with the graphic symbols and values corresponding to the -financial-instruments-in the feed; and

displaying on the video wall the graphic symbols and values corresponding to the financial instruments in the feed.

17. A system for displaying stock ticker information comprises:

a display; and

an electronic device that produces a signal that when fed to the display scrolls market data across the display, said market data comprising a company logo juxtaposed with financial information including real-time textual data associated with financial instruments of entities identified by instrument identifiers in a feed received by the system.

- 18. The system of claim 17 wherein the electronic device is a computer, and the computer is responsive to a source containing financial information and a source that contains bit map data corresponding to the company logo.
- 19. The system of claim 18 wherein the financial information includes company identifiers and wherein the company identifiers are used to access bit maps corresponding to the company logos.
- 20. The system of claim 18 wherein the source of bitmaps is contained in a database of logo bitmaps.
- 21. The system of claim 18 wherein the source containing financial information is a database of financial data.

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The system of claim 18 wherein the real-time textual data scrolled on the display 22. are updated according to market conditions.

- The system of claim 22 further comprising a filter coupled to a source containing 23. financial data, said filter extracting the real-time textual data and placing the real-time textual data in a database.
- The system of claim 17 further comprising a correlator that correlates a bitmap of 24. a company logo with financial data contained in a database.
- The system of claim 24 wherein the real-time textual data scrolled on the display 25. are updated according to market conditions.
- The system of claim 24 further comprising a filter coupled to a source containing 26. financial data, said filter extracting the financial data and placing the financial data in a database.
 - A method for displaying stock ticker information comprises: 27.

displaying market data across an electronic monitor, said market data comprising a company logo and stock ticker real-time textual data associated with the company logo, the realtime textual data juxtaposed with the company logo.

- The method of claim 27 wherein displaying associates a data source containing 28. financial information and a data source that contains bit map data corresponding to the company logo.
- The method of claim 28 wherein the financial information includes company 29. identifiers and wherein the company identifiers are used to access bit maps corresponding to the company logos.

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30. The method of claim 27 wherein displaying market data occurs with market conditions.

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- 31. The method of claim 27 further comprising filtering the source containing financial data, and extracting the data to place the data in a database.
 - 32. A method for displaying stock ticker information comprises:

extracting from a data feed having values of financial instruments, instrument identifiers and the values of the financial instruments;

accessing graphic symbols in accordance with the extracted instrument identifiers; associating the graphic symbols with the corresponding values of the financial instruments to produce a financial instrument ticker; and

displaying the financial instrument ticker, as a moving financial instrument ticker of graphic symbols juxtaposed with corresponding values of the financial instruments across a video display.

33. The method of claim 32 wherein the data feed of values includes identifiers that correspond to the financial instruments, and wherein accessing comprises:

accessing the graphic symbols by using the identifiers to associate the graphic symbols with the financial data.

34. The method of claim 32 further comprising:

correlating a bitmap of a company logo with financial information contained in a database.

35. The method of claim 32 further comprising

updating data on the financial instrument ticker in accordance with current market conditions.

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36. A method for dynamically displaying graphic symbols and value information for financial instruments, the method comprising:

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receiving a feed containing identifiers and corresponding values of financial instruments; extracting from the feed the identifiers and corresponding values of the financial instruments;

retrieving graphic symbols associated with the extracted identifiers;

forming a display signal including the retrieved graphic symbols and values corresponding to the financial instruments; and

displaying on a monitor the graphic symbols juxtaposed with values corresponding to the financial instruments.

- 37. The system of claim 17 wherein the market data corresponds to trades in financial instruments and the company logo is associated with financial information corresponding to a market price for the financial instrument.
- 38. The method of claim 27 wherein the stock ticker information comprises trades of financial instruments.

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